Active Oat Beta Glucan ingredient for healthy looking skin and hair
Avenacare™ Oat Beta Glucan

Tate & Lyle’s oat beta glucan is the natural component to incorporate the rejuvenating, soothing power of oats into your cosmetics and personal care products.

Avenacare™, sensitively produced using the finest, locally-sourced, Swedish oats, bestows the benefits of \( \{1,3\}, \{1,4\} \) Oat Beta Glucan on a diverse range of product applications.

**Skin care**
- Moisturising
- Soothing
- Reduces the appearance of redness
- Helps reduce the visible signs of ageing, such as fine lines and wrinkles
- Used as an active ingredient in sun protection products

**Hair care**
- Nourishes scalp
- Improves glossiness of hair
- Used in products for hair tensile strength

- Natural active ingredient
- Hypoallergenic
- Easy formulation attributes
- Paraben-Free

A diverse range of product applications

<table>
<thead>
<tr>
<th>Skin</th>
<th>Hair</th>
<th>Sun</th>
<th>Oral</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body cream</td>
<td>Conditioner</td>
<td>After-sun</td>
<td>Mouthwash</td>
<td>Anti-itch lotion</td>
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<tr>
<td>Eye serum</td>
<td>Leave-in Serum</td>
<td>Sun screen</td>
<td>Toothpaste</td>
<td>Infant products</td>
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<tr>
<td>Face lotion</td>
<td>Shampoo</td>
<td></td>
<td></td>
<td>Insect bite relief</td>
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<tr>
<td>Face mask</td>
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<td>Shaving products</td>
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<td>Hand cream</td>
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<td>Soaps</td>
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<tr>
<td>Irritation-reduction cream</td>
<td></td>
<td></td>
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<td>Under-arm products</td>
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<tr>
<td>Wound healing</td>
<td></td>
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<td>Wipes</td>
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TATE & LYLE
Avenacare™ benefits

Effect of Avenacare™ Oat Beta Glucan on the appearance of skin redness

Skin Redness Appearance Study

-55.56%

Baseline | 2 hours | 8 hours | 24 hours
Avenacare™ applied to test site after skin irritation

Effect of Avenacare™ Oat Beta Glucan on the appearance of UV-induced redness - sun protection

Skin Redness Appearance Study

-72%

Baseline | 24 hours | 48 hours | 72 hours
Avenacare™ applied to test site prior to UV Exposure (1.0-1.5 MED)

Effect of Avenacare™ Oat Beta Glucan on the appearance of UV-induced redness - after-sun care

Skin Redness Appearance Study

-50%

Baseline | 24 hours | 48 hours | 72 hours
Avenacare™ applied to test site immediately after UV Exposure (1.0-1.5 MED)

Effect of Avenacare™ Oat Beta Glucan in products used for hair strength

Tensile Hair Strength Analysis via Dia-Stron Rheometer

21.68%

Baseline | Day 5
Hair treated with 5-7ml Leave-In Conditioner containing 5% Avenacare™ Oat Beta Glucan
Avenacare™ is a gently-prepared solution of oat beta glucan soluble fibre, derived from the oat bran of high-quality, non-GMO, Swedish oats. Next to the natural active component, the product also contains oat maltodextrins. Insoluble fibre, protein and oil present in the original oat bran fraction are removed from the product by centrifugation. Avenacare™ is supplied as a paraben-free, preserved liquid.

**Avenacare™ composition and technical data**

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Translucent liquid</th>
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<tbody>
<tr>
<td>Density (g/cm³)</td>
<td>1.0</td>
</tr>
<tr>
<td>pH Avenacare™</td>
<td>4.5-5</td>
</tr>
<tr>
<td>pH formulation range</td>
<td>3.5-9</td>
</tr>
<tr>
<td>Shelf life</td>
<td>24 months stored at ambient temp</td>
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<tr>
<td>Viscosity</td>
<td>100-200 cps @ 20°C</td>
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<tr>
<td>Water solubility</td>
<td>Excellent miscibility with water and other aqueous mixtures</td>
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</tbody>
</table>

Soluble oat beta glucan 1.0%
Oat maltodextrins 1.9%
Aqua 97.0%

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